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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,390	09/02/2004	Andrew Philip Parker	C4203(C)	1673

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UNILEVER INTELLECTUAL PROPERTY GROUP  
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EXAMINER
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LISTVOYB, GREGORY

ART UNIT	PAPER NUMBER
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1796

MAIL DATE	DELIVERY MODE
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01/25/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/506,390	<b>Applicant(s)</b> PARKER, ANDREW PHILIP	
	<b>Examiner</b> Gregory Listvoyb	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2,4,6,7 and 10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,4,6,7 and 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 4 rejected under 35 U.S.C. 103(a) as being unpatentable over Rippon (GB 1547958, cited in the previous Office Action) herein Rippon.

Regarding Claim 2, Rippon discloses a method of treating a substrate which comprises the step of contacting a cellulosic textile material (see page 7, line 25) with a composition comprising an azetidinium functionalised polyester (see page 2, line 20 and page 2, line 30).

Rippon discloses that his composition has preferred polymeric chains chosen from polyether, polyester, polyamide and polyurethane (see page 2, line 20) and azetidinium or pyridinium or isothioronium groups.

Therefore, it would have been obvious to a person of ordinary skills in the art to choose polyester and azetidinium from two expressly disclosed lists.

The limitation of claim 2 "synthesized reacting a secondary amine-containing (di)acid or (di)ol with a suitable co- reactant, and a substrate-compatible carrier

including one or more surfactants[.] and wherein the diacid is an iminodiacarboxylic acid in which each carboxylic acid moiety has a carbon number of 2-4" is product-by-process limitation.

Since Rippon 's and Application's polymers are identical, the Application fails to establish the process steps, which makes the product patentable (see MPEP 2113).

"Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process" *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). See Also *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324, 326 (CCPA 1974), *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983), *In re Brown*, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972).

Claims 2, 4, 6, 7,10 rejected under 35 U.S.C. 103(a) as being unpatentable over Rippon. in combination with Boeckh (US 5488095, cited in the previous Office Action) herein Boeskh and Nigam (US 6291023, cited in the previous Office Action) herein Nigam.

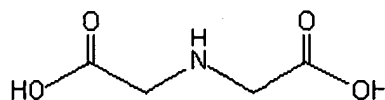
Rippon discloses a composition comprising an azetidinium functionalised polyester (see page 2, line 20 and page 2, line 30) used for treatment of cellulosic fabric (see discussion above).

Rippon does not teach a method of preparing the polyester, which includes the following steps:

- a) reacting an secondary amine-containing (di)acid or (di)ol with a suitable co-reactant, and,
- b) treating the product of step (a) with an epihalohydrin

Instead, he discloses a synthesis, where polyester reacts with azetidinium group.

Boeskh discloses a cleaning composition for fabric treatment (see Column 13, line 10) comprising an functionalised polyester wherein the polyester is esterification product of iminodiacetic acid (which is secondary amine-containing (di)acid) of the following structural formula:



and polyethylene glycol (i.e. diol) (see Column 3, line 25, meeting the limitations of Claim 10), which comprises the same constituents as one of the Application examined (see Example 1 and Claims 2, 6, 8-10 of the Application) and surfactants (see Column 9, line 25) at the presence of esterification catalyst, such as benzene sulfonic acid or sulfuric acid (meeting the limitations of claim 7).

Boeskh teaches that the cleaning system may contain surfactants (Column 9, line 25).

Boeskh does not teach a step of treating his polyester with epichlorohydrine, which results in an azetidinium-functionalized polyester. As evidences by Nigam, the azetidinium-containing compounds are pH insensitive, which significantly increase their number of applications and robustness of the cleaning system. The method of preparation of azetidinium-functionalized polymers is well known. Nigam discloses that commercially available azetidinium-containing polyamides for textile treatment are the product of condensation of polyamino-amine with epichlorohydrine (see Column 8, line 20).

Obtaining azetidinium functionalised polyester in situ instead of preparing it with polyester and azetidinium has an economical advantage, since it eliminate the necessity to buy the expensive reagents.

Therefore, It would have been obvious to a person of ordinary skills in the art at the time the invention was made to prepare azetidinium functionalised polyester with Boeskh method modified with Nigam, due to economical advantage, since it eliminates the necessity to buy the expensive reagents.

### ***Response to Arguments***

Applicant response filed on 11/6/2007 is acknowledged. Due to the Amendments to the Claims 2, 4 and 6, the present Non-final Office Action is issued.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory Listvoyb whose telephone number is (571) 272-6105. The examiner can normally be reached on 10am-7pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Gregory Listvoyb  
Examiner  
Art Unit 1796

GL  
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RABON SERGENT  
PRIMARY EXAMINER